Date: Tue, 18 May 93 14:22:26 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #602
To: Info-Hams

Info-Hams Digest Tue, 18 May 93 Volume 93 : Issue 602

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 18 May 93 17:47:17 GMT
From: news-mail-gateway@ucsd.edu
Subject: DJ-580 Coverage
To: info-hams@ucsd.edu

>Does anyone know if the DJ-580 can be modified to transmit on the
>aircraft band? Bruce Toback

Bruce, my DJ-580 is unlocked on both receive and transmit. It receives
108-143 MHz AM but it will not transmit AM. It does transmit FM on
130-174 and 400-520 MHz (into a dummy load, of course)...Cecil...KG7BK

Date: 18 May 93 14:05:28 GMT
From: auratek!epacyna@uunet.uu.net
Subject: Don't get ripped off by a G5RV
To: info-hams@ucsd.edu

>>Reports from other hams, as well as my experience, shows that G5RV
>>works with acceptable SWR (in my case < 3:1) on all bands, and a low
>>SWR on some bands (in my case close to 1:1 on 7-21MHz). If MININEC
>>does not show this, there is a problem with MININEC or its G5RV file.
>>Observation has priority over theory!
>>Ignacy Misztal Ham radio: NO9E, SP8FWB Internet: ignacy@uiuc.edu

No the problem is not with MININEC. I just used this modeling program to get specific details. The principles involved are well documented. With high SWR the coax absorbs the reflected power, in effect masks the true SWR. The real issue here is that this lost power never gets radiated.

If your issue is whether or not a center fed randon length wire has extreme feed point impdeances (resulting in very high SWR to a 50 ohm system), just look at any antenna handbook.

If your issue is whether or not these extreme SWR's in combination with coax rob you of power look at the graphs on this subject in the transmission line chapter of the ARRL handbook. One shows loss of various coax per 100' when used in a matched 50 ohm system, another the additional loss that gets added due to SWR (this graph only covers conditions up to 20:1 SWR), and another the effect of masking the true SWR due to feed line loss.

So a simple SWR measurement (observation) at the transmitter end of the coax will be erronous.

73's

Ed W1AAZ

Date: 18 May 93 14:53:47 GMT
From: auratek!epacyna@uunet.uu.net
Subject: Don't get ripped off by a G5RV
To: info-hams@ucsd.edu

>>All this theory is nice, but my G5RV has an SWR of less than 6:1 on all
>>the bands it was advertised for. I use a tuner, getting SWR of 1:1 where-
>>ever I want to use it. I consistantly get good reports on 75 and 40 meters,

>>(5-9 in Japan on 75m on 5-16-93) I've worked all continents on 20m, It will
>>tune to 1:1 on 17m, and I've worked Europe and Japan on both 15 and 10m.
>>If you put the thing up high enough and straight enough, it works. You may
>>not want to call it an antenna so you don't miff the purists, but it works
>>and it works just fine.

>>I use 100-140 watts, because I don't need any more.

>>Just MY opinion,
>>Galen Watts, KF0YJ

First of all your not measuring the SWR in the right place. Look at the graph in the transmission line chapter of the ARRL handbook which clearly shows the effect hidden SWR due to relections being absorbed by high loss transmission lines.

Given a situation like the G5RV presents, all your doing by matching at this point is pulling more power out of your transmitter to be absorbed by the transmission line.

Welcome to the world of QRP where you can work the world with 5 watts or less, even 5 band DXCC! I worked over 100 different countries with a 2 watt homebrew transceiver on 20M in a couple of months (used a 68' end fed wire, L network and no transmission line).

The point is why put up and use an antenna thats not very efficient. A 102' center fed antenna using open wire feeders (ladder line) would make your signal 1 to 2 S units stonger in multiband use.

73's

Ed W1AAZ

Date: Tue, 18 May 1993 17:39:51 GMT
From: usc!howland.reston.ans.net!darwin.sura.net!udel!gvls1!rossi@network.UCSD.EDU
Subject: Don't get ripped off by a G5RV
To: info-hams@ucsd.edu

In article <1993May18.155438.3685@nntpd2.cxo.dec.com> little@nuts2u.enet.dec.com

(nuts2u::little) writes:
>Either the theory or the evidence is wrong. If you believe that the
>experience is correct, please provide conclusive measured repeatable
>results that refute the theory, and explain those results. Anecdotal
>performance reports about working the world is hardly evidence that
>something works as advertised. Particularly when transmission line theory
>and propogation theory would predict that working the world is possible
>with the G5RV antenna under good propogation conditions. But don't suggest
>that the antenna is a good performer simply because of a 59 report from a
>DX station.

A "cousin" to the multi-band G5RV is the multi-band 1/4 wave trap vertical or otherwise known as an "outdoor dummy load". People (include me) put these things up, ground mounted, over normal soil with only a short ground rod (no radials) and proceed to "work the world". They may be convinced that it is working great. Later they find out that over 1/2 of their transmitter power is heating up the ground!! Still they work all kinds of stuff and probably get lots and lots of 59 reports. So what? The antenna is still extremely inefficient. The only reason it appears to work may be band conditions or simply the other guy's ability to pull you out of the mud. If you have good propagation, almost any antenna will work to some degree.

Now, when you take a poor antenna such as this ground mounted vertical and configure it correctly with a proper ground system under it (100 1/4 wave radials) then it will *really* start to play and the difference is like night and day. The same theory applies to wire antennas like the G5RV.

The bottom line is put up whatever antenna your property/budget will allow, but just because you can work stuff does not necessarily mean it is working 100% correctly.

==
Pete Rossi - WA3NNA   rossi@VFL.Paramax.COM

Paramax Systems Corporation - a Unisys Company
Valley Forge Engineering Center - Paoli, Pennsylvania
==

Date: Tue, 18 May 1993 19:38:13 GMT
From: usc!howland.reston.ans.net!zaphod.mps.ohio-state.edu!math.ohio-state.edu!
magnus.acs.ohio-state.edu!csn!yuma!galen@network.UCSD.EDU
Subject: Don't get ripped off by a G5RV
To: info-hams@ucsd.edu

In article <1113@auratek.UUCP> epacyna@auratek.UUCP (Edward Pacyna) writes:
>

>>>All this theory is nice, but my G5RV has an SWR of less than 6:1 on all
>>>the bands it was advertised for. I use a tuner, getting SWR of 1:1 where-
>>>Just MY opinion,
>>>Galen Watts, KF0YJ
>
>First of all your not measuring the SWR in the right place. Look at the graph
>in the transmission line chapter of the ARRL handbook which clearly shows the
>effect hidden SWR due to relections being absorbed by high loss transmission
>lines.

I didn't say where I measured the SWR. I have about 20 feet of RG-8 from the
balun to the output of the tuner. This presents a loss of about 0.25 dB at
30 MHz, 0.07 dB at 3.5 MHz. Using the 6:1 SWR I measured at 3.5 MHz AT THE
ANTENNA, this gives an additional loss of about 0.3 dB due to standing waves.
Total loss is 0.37 dB.

>Given a situation like the G5RV presents, all your doing by matching at this
>point is pulling more power out of your transmitter to be absorbed by the
>transmission line.

Given a total loss of 0.37 dB, if my VSWR at the TX is 2:1, this gives a
VSWR at the antenna of 2.2:1, see fig 24, Ch 16 ARRL handbook.
If I feed 100 watts into the antenna tuner, I lose about 9 watts in the
feedline. If I put more power, the same ratio of input to loss occurs, so
when I match using the tuner, the power increase doesn't all go into loss,
only 9% of the additional power is lost.

>The point is why put up and use an antenna thats not very efficient. A 102'
>center fed antenna using open wire feeders (ladder line) would make your signal
>1 to 2 S units stonger in multiband use.
>73's
>Ed W1AAZ

Yeah, and I have to worry about the open line presenting high voltages
to innocent bystanders, passing the open line into my shack......

What I have works. I think I got my money's worth, and I enjoy using it.

It really makes me sad when people decide that some piece of equipment
doesn't meet their standards and they proceed to tell everybody that it's
junk when a lot of people get good or better results with it. It's come
to the point where everything is a big competition and nobody has any fun.
I thought it was AMATEUR radio.

I have better things to do,
Galen Watts, KF0YJ.

Date: 18 May 1993 17:58:04 GMT
From: usc!howland.reston.ans.net!sol.ctr.columbia.edu!hamblin.math.byu.edu!
usenet@network.UCSD.EDU
Subject: HELP ME!!!!!!!1
To: info-hams@ucsd.edu

I have an antenna w/ tunner, portable antenna from mfj w/ ts-520s and SWR.

could someone help me how to tune the rig so that I can fire it up.

thnx
tatsuya

Date: 18 May 1993 12:20:37 -0700
From: olivea!gossip.pyramid.com!sword.eng.pyramid.com!andrem@decwrl.dec.com
Subject: Mobile antenna mount question
To: info-hams@ucsd.edu

I'm trying to locate an antenna mount with the following attributes
(if such a beast exists - I'm asking for a lot):

    For use with ATV transmitters around 430 MHz

    Is *not* a mag-mount

    Can be moved from car to car within minutes

    Does not require drilling holes

    Can attach to areas like trunk lips or hatch-backs

Any suggestions?

+---+
| Andre Molyneux   KA7WVV   "Insert your favorite disclaimer here" |
+---------------------------------------+-------------------------------+
-=-------- PYRAMID TECHNOLOGY CORP	Internet:
---===------ 3860 N. First Street	andrem@pyramid.com
----=====---- San Jose, CA	Packet:
------=======-- (408) 428-8229	ka7wvv@n0ary.#nocal.ca.usa.na
+---------------------------------------+-------------------------------+

Date: 18 May 93 18:53:28 GMT
From: news-mail-gateway@ucsd.edu
Subject: Mods for TS50
To: info-hams@ucsd.edu

Anyone out there know how to get general frequency
on a Kenwood TS-50 HF rig please let me know?????

Clark Fishman WA2UNN cfishman@pica.army.mil

Date: 18 May 93 20:42:18 GMT
From: news-mail-gateway@ucsd.edu
Subject: Monthly Solar & Geophysical Review for April 1993
To: info-hams@ucsd.edu

-- MONTHLY REVIEW OF SOLAR AND GEOPHYSICAL ACTIVITY --
Summary for April 1993

Report compiled by the
Solar Terrestrial Dispatch
P.O. Box 357
Stirling, Alberta
T0K 2E0, Canada

Data Provided In-Part Courtesy of the
Space Environment Services Center, NOAA
and the
NRC / Dominion Radio Astrophysical Observatory
Penticton, British Columbia, Canada

MONTHLY ACTIVITY SUMMARY FOR APRIL 1993

We are now in month 80 of solar cycle 22 (as of April 1993). There were 328 flares (optical and x-ray) in April. This is a drop of 9% over the number of flares observed in March. Of these 328 flares, 1 was ranked as a major event and 2 were categorized as minor M-class events.

A breakdown of the energetic events for the last four months follows below.

	APR '93	MAR '93	FEB '93	JAN '93
Major	1	4	2	0
Minor M-class	2	9	16	2

Class C or smaller	328	351	410	163
Total	331	364	428	165

The monthly sunspot number for April was 98.6 as computed by the SESC. The preliminary RI international sunspot number for April was 61.9 which results in a smoothed sunspot number of 76.5 for October 1992.

The monthly 10.7 cm solar radio flux for April was 115.9 which results in a preliminary smoothed mean flux value of 130.5 for October 1992. The monthly mean solar flux adjusted to 1 AU was 105.0.

The largest x-ray flare of April was a class M8.7/1B tenflare from Region 7477 from N10E55 at 19:15 UT. The flare was associated with major Type II and Type IV sweeps. A tenflare measuring 680 sfu also occurred, lasting 11 minutes. The region showed some signs of magnetic restructuring and growth following the flare, but failed to produce anything more energetic than a small M1.5/SB event at 14:11 UT on 22 April shortly after crossing the central meridian. This region was the major center of activity during the month of April, producing a total of 66 flares (or 20% of all the flares observed on the disk during April).

The list of minor M-class or greater flares and associated radio emissions observed during April follows:

SUMMARY OF MAJOR ENERGETIC EVENTS

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
18 Apr:	1902	1915	1921	M8.7	1B	7477	N10E55	680	1200	1500

SUMMARY OF MINOR M-CLASS EVENTS

Date	Begin	Max	End	Xray	Op	Region	Locn	2695 MHz	8800 MHz	15.4 GHz
06 Apr:	2343	2346	2352	M1.5				52	83	80
22 Apr:	1404	1411	1417	M1.5	SB	7477	N11E04	97	430	450

The geomagnetic field in April was less active than observed in March. The estimated planetary A-index for April was 18, compared with 21 in March. This results in an estimated smooth value of 16.4 centered on October 1992, compared with 15.8 for September 1992. There were two sudden magnetic impulses observed during the month. The first occurred at 14:34 UT on 04 April and measured 11 nanoteslas (nT). The others occurred at 06:17 UT on 22

April and measured 12 nT.

The most disturbed day of the month was 05 April following the arrival of a high-speed stream thought to have emanated from an equatorward lobe of the southern polar crown coronal hole. On 05 April, this coronal hole extension protruded to approximately S30 at W25. The estimated planetary A index for 05 April hit 102, which is in the severe-storm category. The GOES spacecraft (both GOES-6 and GOES-7) experienced significant multiple magnetopause crossings. The most serious occurred from about 16:00 UT to 18:00 UT.

It is interesting to note that approximately one solar rotation earlier (27 days earlier on 08 March) a similar disturbance was observed. However, that disturbance had a much stronger sudden impulse of 50 nT and was likely attributed (at least in-part) to the CME associated with the major M7.7/3B tenflare of 06 March. The same southern polar coronal hole extension that existed in April was also apparent in a similar configuration in March. For this reason, the high-speed stream from the coronal hole extension of this earlier disturbance may have been masked and/or enhanced by the flare-shock of 08 March.

Late note: The coronal hole extension noted above dissipated on the next solar rotation, thereby failing to produce another recurrent episode of enhanced activity on 01 and 02 May.

A long-duration C5/1F flare erupted out of Region 7465 (then at S06W52) at 03:06 UT on 08 April. A 40 minute Type IV sweep accompanied this event together with a weak proton enhancement at greater than 10 MeV. Protons never exceeded 1 pfu and decayed to background levels by 10 April. This was the only proton enhancement observed in April.

RECENT SOLAR INDICES (PRELIMINARY) OF THE OBSERVED MONTHLY MEAN VALUES
Last Updated May 18, 1993

	Sunspot Numbers					Radio Flux		Geomagnetic	
	Observed		Ratio	Smooth Values		Penticton	Smooth		Smooth
	SESC	RI	RI/SESC	SESC	RI	10.7 cm	Value	Ap	Value
				YEAR = 1989					
Jan:	203.2	161.6	.80	189.2	141.9	235.4	190.2	19	16.7
Feb:	211.0	164.5	.78	196.0	144.7	222.4	194.0	15	17.0
Mar:	176.8	131.0	.74	204.1	149.4	205.1	199.7	41	17.6
Apr:	172.3	129.3	.75	209.9	153.1	189.6	204.4	23	18.2
May:	207.0	138.4	.67	216.4	156.5	190.1	209.3	16	18.8
Jun:	297.3	196.0	.66	220.1	157.9	239.6	213.1	17	19.2

Jul:	193.9	126.8	.65	221.1	158.1	181.9	212.6	8	19.1
Aug:	243.0	166.8	.69	221.5	157.4	217.1	209.7	20	19.3
Sep:	240.7	176.8	.74	221.3	156.3	225.9	207.2	17	18.8
Oct:	217.4	158.5	.73	223.2	157.1	208.7	206.3	21	18.3
Nov:	255.0	173.0	.68	223.4	157.3	235.1	206.1	19	18.4
Dec:	217.8	166.1	.76	217.3	153.3	213.0	203.3	16	18.4
				YEAR = 1990					
Jan:	239.3	177.3	.74	212.4	150.6	210.1	200.4	14	18.6
Feb:	184.7	130.5	.71	213.9	152.9	178.3	200.5	23	18.8
Mar:	198.6	140.3	.71	212.7	152.0	188.8	198.7	23	18.6
Apr:	196.1	140.3	.72	210.5	149.3	185.3	195.6	27	18.3
May:	187.7	132.2	.70	208.1	147.0	189.7	192.4	16	17.6
Jun:	168.9	105.4	.62	205.3	143.8	170.9	189.9	16	16.8
Jul:	204.3	149.4	.73	203.8	140.6	180.7	190.4	14	16.2
Aug:	269.4	200.3	.74	206.3	140.5	222.6	193.9	19	15.4
Sep:	186.4	125.2	.67	211.1	142.1	177.4	198.3	14	15.0
Oct:	219.0	145.5	.66	213.1	142.1	182.0	200.6	15	14.8
Nov:	196.1	131.4	.67	213.7	141.7	184.3	201.2	9	14.4
Dec:	208.0	129.7	.62	216.1	143.9	204.9	202.7	7	15.7
				YEAR = 1991					
Jan:	213.5	136.9	.64	220.5	147.6	229.4	205.5	8	17.4
Feb:	270.2	167.5	.62	221.5	147.6	243.0	206.3	10	18.4
Mar:	227.9	141.9	.62	220.7	146.6	230.0	205.9	27	19.1
Apr:	215.9	140.0	.65	220.7	146.5	198.8	206.8	17	20.0
May:	182.5	121.3	.66	219.6	145.5	190.3	207.1	18	21.7
Jun:	231.8	169.7	.73	218.9	145.2	206.8	207.4	44	23.0
Jul:	245.7	173.7	.71	219.5	146.3	212.0	207.7	27	23.6
Aug:	251.5	176.3	.70	218.3	146.5	210.3	206.8	30	24.7
Sep:	185.8	125.3	.67	214.2	144.7	180.6	203.9	20	25.0
Oct:	220.1	144.1	.65	208.4	141.6	201.3	199.7	31	24.3
Nov:	169.0	108.2	.64	202.2	137.9	172.0	195.4	33	24.1
Dec:	217.7	144.4	.66	193.7	131.6	223.9	188.9	15	23.0
				YEAR = 1992					
Jan:	217.9	149.3	.69	183.3	123.6	217.6	181.8	14	21.1
Feb:	238.2	159.6	.67	171.8	115.2	232.1	174.8	31	19.8
Mar:	160.5	106.9	.67	161.6	108.0	171.3	168.5	14	19.4

Apr:	144.0	99.8	.69	154.3	103.1	158.5	162.9	11	18.9
May:	106.3	73.8	.69	148.9	100.1	125.4	158.8	21	17.5
Jun:	104.7	65.2	.62	143.3	96.9	116.7	154.2	15	16.6
Jul:	121.4	85.7	.71	134.3	90.6	132.3	146.6	10	16.6
Aug:	99.5	64.5	.65	124.4	84.0	122.1	138.9	15	16.1
Sep:	93.8	63.9	.68	117.5	79.6*	116.8	133.7*	25	15.8*
Oct:	136.2	88.3	.65	113.4	76.5*	130.8	130.5*	15	16.4*
Nov:	124.3	92.0	.74			145.2		14	
Dec:	127.4	83.3	.65			139.1		13	
				YEAR = 1993					
Jan:	92.1	59.1	.64			121.0		17	
Feb:	126.1	90.5	.72			142.6		16	
Mar:	107.4	70.5*	.66*			136.4		21*	
Apr:	98.6	61.9*	.63*			115.9		18*	

* = Preliminary estimates, Unmarked = Final Values.

The lowest smoothed sunspot number for Cycle 21, RI = 12.3, occurred in September 1986. The sunspot maximum for this cycle (cycle 22) occurred in July 1989, with a peak smoothed sunspot number (RI) of 158.1.

Note: Prior to June 1991, the 10.7 cm solar radio flux measurements originated from the Algonquin Radio Observatory near Ottawa. From June 1991 onward, the flux has been (and will continue to be) measured from the Dominion Radio Astrophysical Observatory at Penticton, British Columbia, Canada.

DAILY VALUES OF SOLAR FLUX AT 2800 MHz (PENTICTON-DRAO) AT 2000 UT

Data Valid for April 1993

Data Courtesy of the National Research Council of Canada
Herzberg Institute of Astrophysics
Dominion Radio Astrophysical Observatory
Penticton, British Columbia
CANADA

Series D is the best estimate of absolute value and is obtained by using the multiplier 0.90 recommended by Commission V of URSI.

1993	Observed	Adj to 1 AU

	Series C	Series C	Series D
1	123.6	123.5	111.2
2	120.8	120.7	108.6
3	117.0	117.0	105.3
4	116.3	116.4	104.8
5	118.8	118.9	107.0
6	132.8	133.1	119.8
7	129.7	130.0	117.0
8	143.1	143.5	129.1
9	135.5	136.0	122.4
10	138.6	139.2	125.3
11	118.8	119.4	107.5
12	103.2	103.7	93.3
13	97.2	97.7	87.9
14	92.2	92.8	83.5
15	88.2	88.8	79.9
16	90.2	90.9	81.8
17	95.7	96.5	86.8
18	105.7	106.6	95.9
19	110.9	111.9	100.7
20	118.8	119.9	107.9
21	119.3	120.5	108.4
22	117.1	118.4	106.6
23	121.5	122.9	110.6
24	128.8	130.3	117.3
25	124.6	126.2	113.6
26	123.3	125.0	112.5
27	118.0	119.6	107.6
28	113.6	115.2	103.7
29	106.5	108.1	97.3
30	105.8	107.4	96.7
Mean:	115.9	116.7	105.0

OUTSTANDING EVENTS - SOLAR RADIATION AT 2800 MHZ **

DATE	KEY	CLASS	START U.T.	MAXIMUM U.T.	DURATION	PEAK FLUX	MEAN FLUX
APRIL			HOURS	HOURS	MINUTES		
06	4	S/F Simple II F	2343.4	2345.2	3.8	49.2	12

08	Z	3	S	Simple II	1927	1933	7.5	incomplete
	3	29	PBI	P.B.Increase	1934.5	1957.5	270	15.9	9
	Z3	4	S/F	Simple II F A	2029.5	2039.1	17.4	35.9	12
	@@	29	PBI	P.B.Increase A	2047	2047	66	12.9	7
10	Z	28	PRE	Precursor	1731.4	1741.5	10.3	4.8	2
	3	4	S/F	Simple II F	1741.5	1747.9	22.1	26.3	13
	@	29	PBI	P.B.Increase	1803.6	1803.6	84	10.4	5
		3	S	Simple II	2118.8	2119.1	1.8	35.9	9
		3	S	Simple II	2332.7	2333.6	2.5	132.1	36
18	Z	28	PRE	Precursor	1904.5	1906.4	3.5	20.5	9
	@	45	GB	Great Burst	1908.0	1909.1	9.7	612	159

** All bursts are now observed only at DRAO, Penticton BC

SUMMARY OF AVERAGE SOLAR AND GEOPHYSICAL INDICES FOR APRIL 1993

(Based on SGDB data released by the S.T.D.)

10.7 cm Solar Radio Flux: 115.45
Sunspot Number: 98.63
Boulder A-Index: 14.73
Planetary A-Index: 17.63
Background X-Ray Flux (1-8A): B2.77

Proton Fluence at > 1 MeV: 9.7267e+05
Total (non-averaged) Fluence at > 1 MeV: 2.9180e+07
Proton Fluence at > 10 MeV: 1.2880e+04
Total (non-averaged) Fluence at > 10 MeV: 3.8640e+05

Average Daily Deviation of the Boulder Magnetometer: 27.87 nT

Short Wave Fadouts (SWFs): 0.07
Total Number of SWFs during Interval: 2
SWF Durations: 1.43 minutes
Total Duration of SWFs during Interval: 43 minutes

Average Daily X-Ray Flux: B5.21
Average Neutron Counts: +0.10%
Average Daily PCA: +0.00 dB

** End of Monthly Report **

Date: Tue, 18 May 93 16:13:05 GMT
From: mnemosyne.cs.du.edu!nyx!jmaynard@uunet.uu.net
Subject: N/Tx <--S/Tx Duct
To: info-hams@ucsd.edu

In article <wier-170593224201@csci-wiermac.etsu.edu> wier@merlin.etsu.edu (Bob Wier) writes:
>On Sunday evenings after midnight, all the Dallas tv stations
>seem to simultaneously go off the air (at least 13 an above).

Well... :-)

>I was SUPRISED when I found I was looking at KHOU
>in Houston! It was pretty stable - would fade out for maybe
>a minute and then be back for 5.

The band was gonzo open Sunday and monday; I was hearing a Fort Worth 440 repeater in Galveston Sunday evening on a mobile radio.

>Question to someone in Houston. Does KHOU have TWO
>channels (11 & 39) or would I have been seeing a translator
>on 39 from somewhere? Any clue where it might have been?

Houston's channel 39 is KHTV; KHOU is on 11. We also have 2, 8, 13, 14, 20, 26, 45, 48, and 67, for your DX viewing pleasure. :-)
--
Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
jmaynard@oac.hsc.uth.tmc.edu | adequately be explained by stupidity.
"I'm waiting for that "National data superhighway" to install an onramp in
                      my house..." -- Gary Rich

Date: 18 May 93 15:36:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: Radio Shack 70cm HT?
To: info-hams@ucsd.edu

>I wonder how much longer it'll be before they put out a dual-bander and
>a mobile. Obviously the're realizing that there's some money to be made
>on amateur gear. Can you imagine an HF rig from Radio Shack? Kind of
>scary really.
>Tony

scary?

don't know why. it would probably be a good thing to get reasonably good communications grade equipment out in the public view for them to see. maybe even some stores will set up receive only installations to allow people to hear real shortwave radio instead of those table top units that might pick up something other than the AM/FM broadcast bands on a great day....

maybe there's a Drake TR-8 in the future too.

and for the pro-code people out there -- how come there's never anything about the "goodness" of learning code in all those 49 MHz radios that have such blatant code keys on them? There's a missed positive opportunity there, gentlemen. [some now are shaped like cell radiophones w/o a code key..]

Bill (who remembers it used to be Allied Radio Shack for a time...and they did have SW and amateur comm receivers in stock...) wb9ivr

---

Date: Tue, 18 May 1993 16:47:03 GMT
From: news@rice.edu
Subject: RG 174
To: info-hams@ucsd.edu

        For my birthday, I got the yuppie toy, a cell phone.
So I needed an external antenna.   (didn't want all that high-
energy RF right by my head, yuk yuk)   Got the thing today.
it has RG 174 cable; tiny stuff.   What's the impedance?

        Also ... the stick is shorter than the typical sign
of yuppiness you see attached to so many windows on the freeway.
It looks like it might be 800MHz 1/4 wave, while the usual thing
is (looks like) 5/8 wave.   Anyone reckon it makes a difference?
(after all, DX isn't the intent here)   But I'm curious.

--
Thanks to the new IBM, most ESA systems today
can be suspected of being stable. -- Barton Robinson

Stop BASIC before it stops you.   -- Dijkstra
Stop UNIX before it stops you.   -- Troth

Rick Troth <troth@rice.edu>, Rice University, Information Systems

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Date: Tue, 18 May 1993 19:18:31 GMT
From: sdd.hp.com!cs.utexas.edu!csc.ti.com!tilde.csc.ti.com!fstop.csc.ti.com!
sbrown@network.UCSD.EDU

Subject: RG 174
To: info-hams@ucsd.edu

In article <C78EMG.1Dt@rice.edu> Rick Troth <troth@rice.edu> writes:

> For my birthday, I got the yuppie toy, a cell phone.
> So I needed an external antenna. (didn't want all that high-
> energy RF right by my head, yuk yuk) Got the thing today.
> it has RG 174 cable; tiny stuff. What's the impedance?

50 ohms. A 100 foot length of it makes a pretty good dummy load.
My book says the loss is 30 db/hundred feet at 1000MHz.

> Also ... the stick is shorter than the typical sign
> of yuppiness you see attached to so many windows on the freeway.
> It looks like it might be 800MHz 1/4 wave, while the usual thing
> is (looks like) 5/8 wave. Anyone reckon it makes a difference?
> (after all, DX isn't the intent here) But I'm curious.

Probably not. The usual rule of thumb is that 5/8 wave are "superior"
in flat country while 1/4 waves are slightly more suitable in hilly
country. The idea is that the "gain" of a 5/8 wave over a 1/4 wave
is due to a slightly thinner radiation pattern donut. This thinner
donut means that the 5/8 wave is relatively less able to stand being
mispointed by you going up and down hills than the 1/4 wave is.
Suspect hills are not much of a problem in Houston.

So much for my 2c worth.

```
              ********************************************
              |  Steve Brown, WD5HCY         | Simplicate |
              |  sbrown@charon.dseg.ti.com   | and add    |
              |  wd5hcy@kf5mg.#dfw.tx.usa.na | lightness. |
              ********************************************
--
              ********************************************
              |  Steve Brown, WD5HCY         | Simplicate |
              |  sbrown@charon.dseg.ti.com   | and add    |
              |  wd5hcy@kf5mg.#dfw.tx.usa.na | lightness. |
              |  (214) 575-3597              |            |
              |  MSG:SBRN                    |    - Bill  |
              |  MS 8496, PSK0               |      Stout |
              ********************************************
```

Date: Tue, 18 May 1993 17:33:00 GMT
From: pipex!warwick!dcs.warwick.ac.uk!sirraj@uunet.uu.net

Subject: Software engineer seeks advice
To: info-hams@ucsd.edu

Hello,

My background is in computers - hardware and software and recently I've become interested in amateur radio. What I intend to do is build a system that will link two PC compatables over a short range (less than a mile). The software side posses no problem - I can sort out a suitable protocol and I can program the interfaces. On the hardware side I know how to build FSK encoders and decoders.

My real problem is with the radio link. Have you ever done something similar ? Can you recomend some decent books ? What about government restrictions (UK only) ? If you can help or if you're interested in this sort of stuff then please mail me. I look forward to your reply.

Sirraj (sirraj@dcs.warwick.ac.uk)

Date: Tue, 18 May 1993 19:46:54 GMT
From: usc!zaphod.mps.ohio-state.edu!darwin.sura.net!rsg1.er.usgs.gov!resdgs1.er.usgs.gov!tbodoh@network.UCSD.EDU
Subject: turn about is fair play
To: info-hams@ucsd.edu

In article <1993May18.191601.10414@nntpd2.cxo.dec.com>, jepsen_st@goedux.enet.dec.com (goedux::jepsen_st) writes:
|> >Eric KB6LUY suggested buying the 11-meter band. At first blush it's
|> >a pleasant thought. However, what to do with the current occupants??
|>
|> I hope It doesn't occur to these occupants to purchase our bands first!
|>
|> Steve...AI7W

--

Perhaps we could suggest to the CB'ers that they buy the cellular bands - think how secure their conversations would be - with their privacy ensured by legislation!

++
+ Tom Bodoh - Sr. systems software engineer
+
+ USGS/EROS Data Center, Sioux Falls, SD, USA 57198 (605) 594-6830 +

+ Internet; bodoh@dgg.cr.usgs.gov (152.61.192.66)
+
+ "Welcome back my friends to the show that never ends!" EL&P
+
++

Date: Tue, 18 May 1993 19:25:07 GMT
From: beta.lanl.gov!tjf@lanl.gov
Subject: Upgrade time Tech+ -> Advanced with New Call
To: info-hams@ucsd.edu

Hi...I upgraded to Advance last March 16 and just received my new call
yesterday, just short of 9 weeks.

-Tom
KJ5LT (was KB5YEM/AA)

Date: Tue, 18 May 1993 17:31:30 GMT
From: news.acns.nwu.edu!casbah.acns.nwu.edu!lapin@network.UCSD.EDU
To: info-hams@ucsd.edu

References <930421130108@nauvax.ucc.nau.edu>, <103360181@hpfcso.FC.HP.COM>,
<930514132117@nauvax.ucc.nau.edu>
Subject : Re: What is circular polarization?

In article <930514132117@nauvax.ucc.nau.edu> cvm@zippy.telcom.arizona.edu (Chris
Michels) writes:

...stuff deleted...

>am still wondering why circular polarization is used.   I have heard a
>couple of explanations:
>
>1 - Cirular polarization is just the result of satellites spinning and
>has no real benefit.
>
>2 - Circular polarization is intentional and allows ground stations to
>not worry about the polarization of their antenna because the circular
>polarized signal will be oriented acceptably at least 50% of the time.
>
>Which of these (if either) are true.
>
>More questions, how does using a circularly polarized antenna help. If
>#2 above is true, then it a fixed polarized antenna would be acceptable.

>If this is not true, then how does a circularly polarized antenna know
>at what rate and orientation to spin the polarization. Does the
>polarization make one reveloution per wave or does it not matter? It
>seems that if the polarization of the signal and the receiving antenna
>were changing at the same rate but were 90 degrees out of phase, then
>the signal would be missed/lost.
>...
>Chris Michels -- Systems Programmer cvm@nauvax.ucc.nau.edu
>Northern Arizona University -- Flagstaff, AZ cvm@nauvax.bitnet
>Phone: (602) 523-6495 N7YIU

Here is an example of a use for circular polarization:

In Chicago, two of the world's tallest buildings are about a mile apart.
TV and radio antennas are on both the Sears Tower and the Hancock Building.
Reflections from these buildings lead to some wicked ghosting in some
areas. WBBM-TV (CBS, Channel 2) now transmits a circularly polarized
signal from the Hancock building. When the signal reflects off the Sears
Tower, the sense of the polarization reverses (eg., looking from the north,
where I live, the original signal is CW and the reflection is CCW).

If you receive this with a circularly polarized antenna (horizontally and
vertically polarized antennas 90 deg out of phase and summed), one sense
will have 2x magnitude and the other sense will cancel. By adjusting the
phase delay (lead or lag) you can enhance the signal and kill the ghost.

If all the TV stations in Chicago would transmit with circular
polarization, I might go to the trouble of setting a system like this up.

My thanks to Dave Poole at Zebra Technologies who performed the experiments
to determine this for WBBM.

Greg Lapin KD9AZ
glapin@nwu.edu

End of Info-Hams Digest V93 #602
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